# University of Pittsburgh Medical Center

The University of Pittsburgh Medical Center (UPMC) includes19 hospitals and over 5,000 doctors in over 400 offices. In the face of dramatic growth, UPMC faced a challenge: how to ensure that its technology infrastructure kept pace with its business requirements. Processes such as verifying the eligibility of individuals while maintaining the confidentiality of sensitive patient information were critical to the continued success of the organization.
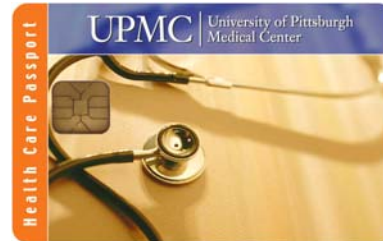
UPMC looked at the smart card as an emerging technology with the potential to enhance administrative processes and system communications. An initiative was undertaken to find a solution that would then be evaluated to determine whether it enhanced the integration of UPMC's many systems and practices. The objectives for this system were to solve the challenges of complying with data privacy and confidentiality legislation (i.e., HIPAA), enable patients to access and participate in updating their information, and provide a portable solution supporting immediate access and consistent data flow.

UPMC determined that smart cards could play a role in this new system. Following a successful 2-year pilot project, the UPMC smart card, dubbed the Healthcare Passport, has been distributed to 2,000 UPMC patients.

For the patient, the immediate benefits include speeding through the check-in process during office visits. The cards enable better care through faster retrieval of important medical information, according to Scott Gilstrap, Director for Technology Solutions at UPMC. "The smart card eliminates a lot of paperwork for the patient and makes the visit to the doctor more convenient and less stressful," Mr. Gilstrap said. "It can be a true lifesaver, especially for the elderly who may not remember all of the medications they are taking. This information is stored, updated accurately and easily available on the card."

The focus of the smart card deployment so far has been the practice of Solano & Kokales Internal Medical Associates–UPMC. The practice maintains smart card readers for staff to use to access and update patient cards. Patients can use computer kiosks in their physician's office and in examination rooms to access and suggest changes to their medical information in privacy and also to obtain a printed copy of the smart card information. Patients can also purchase a card reader to use with a home computer. Personal identification numbers (PINs) are required to access the data on a card.

With the smart card, patients no longer need to supply their personal information each time they visit the doctor, since the cards contain critical information such as medications, allergies, and chronic conditions. By inserting a patient's card into a computer in the exam room, the physician has instant access to accurate and up-to-date information about the patient.

The UPMC smart card uses sophisticated security measures that make it nearly impossible for strangers or unauthorized personnel to retrieve a patient's medical information. To access information, each patient and physician must have a card and a PIN (two-factor authentication). The cards also may decrease the likelihood of inaccurate billing. About 90 percent of services denied by insurance companies are due to clerical errors made at the time of registration for a clinical service.

Emergency departments equipped with card readers can rapidly access potentially lifesaving information about a patient, such as allergies to medications and chronic medical conditions. The initial rollout included smart card readers at the UPMC Presbyterian Hospital emergency department, the Department of Orthopedic Surgery, the Center for Sports Medicine, and Dr. Solano's practice.

The smart card project is just one component of a progressive information technology initiative at UPMC. The centerpiece of the initiative is the development of an electronic health record to be totally integrated across the entire system, which includes hospitals in both urban and rural settings, hundreds of physician's practices, and nursing, personal care, and long-term care facilities. The goal of UPMC's information technology initiative is to improve the quality of patient care, reduce errors and duplication of services, and be more cost-effective. UPMC believes that information technology affords patients greater access to care and contributes to a more informed, interactive healthcare experience.